Reference Material Request

If you would like to receive reference materials mentioned in this **√Checklist**, please fill out and mail the attached form. To use the form, cut it out of this booklet, place in envelope, and mail it to the Pollution Prevention (p2) Program or call the p2 Program at 505-873-7058, 873-7059 or 873-7004. Telefax to 873-7087

There is no charge for the Reference Manual

City of Albuquerque
PWD/WWUD - Pollution Prevention Program
4201 Second St. SW
Albuquerque, NM 87105

□ Please send a copy of the entire Reference Manual, or send the following information:

Waste Stream:

- **□ Chapter 2 Source Control & Housekeeping**
- **□ Chapter 3 Brakes**
- **□ Chapter 4 Solvents & Cleaning**
- **□ Chapter 5 Washing Vehicles**
- **□ Chapter 6 Oil Water Separators & Sandtrps**
- **□ Chapter 7 Recycling Oil & Fuel Wastes**
- **□ Chapter 8 Waste Antifreeze**
- **□ Chapter 9 Batteries & Tires**
- **□ Chapter 10 Radiators**
- **□ Chapter 11 Automotive Paint & Body**
- **□ Chapter 12 Spill Control**
- **□ Chapter 13 Hazardous Waste**

Appendices:

- **□ A Sample of Written Waster Material Handling**
- **□ B. Hazardous Material Emergency Response Plan**
- **□ C. Storm Water Regulations**
- **□ D. General OSHA Information**

Please Provide (type or print):

Name & Title_____

Company Name_____

Mailing Address_____

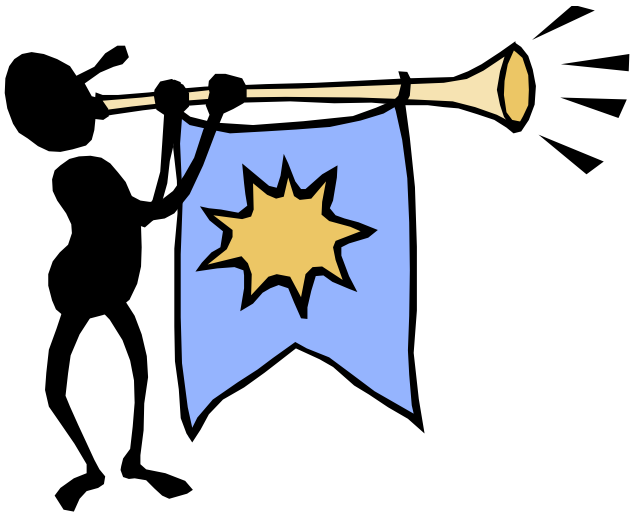
City, State & Zip_____

Phone #_____

Fax #_____

DISCLAIMER:

The City of Albuquerque does not endorse any of the techniques, businesses, equipment or methods mentioned in the **√Checklist or Reference Manual**. This document is intended only as **guidance** for the automotive repair industry in developing approaches for pollution prevention/source reduction. Compliance with environmental and occupational safety and health laws is the responsibility of each individual business and is **not** the focus of this document.



Checklist

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Best Management Practices for Auto Shops

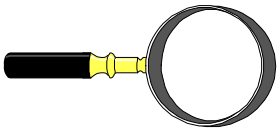
Reference Manual Table of Contents

Best Management Practices for Auto Repair Shops

Public Works Department/WWUD Pollution Prevention (p2) Program
4201 Second St. SW Albuquerque, NM 87105 (505)873-7058/7059

Appendices A-E, are contained in the Reference Manual. These materials are available separately upon request.

Introduction



This document is intended to promote a baseline of voluntary compliance practices by auto repair shops. Businesses participating will be certified by the City of Albuquerque and awarded annual recognition certificates, which will be published in local business publications. This booklet identifies options and alternatives to achieve pollution prevention goals according to the practices used in the automotive industry.

The Pollution Prevention Program is non-regulatory and is an educational and research tool that can provide you with information concerning methods of source reduction and pollution prevention for your business. If requested, Pollution Prevention personnel are available for on-site consultations to review your manufacturing processes and discuss methods of pollution prevention if needed. The Program will also put you in contact with other non-regulatory information services concerning hazardous waste and air quality, if requested.

In today's business world, controlling the generation of hazardous chemicals and wastes generated from day to day operations makes good business sense. Not only will waste minimization techniques and methods save companies money, but will enhance a business's image with the public, its employees, and will help a company to reduce regulatory headaches. More and more government agencies are promoting a proactive approach to environmental regulation. Often times if a business opts to practice voluntary compliance this effort is recognized and lauded by government agencies. Companies receive the benefit of saving money, improving employee moral, and being recognized as an environmentally conscious manufacturer.

❒ *Understanding the Code of Practice for Automotive Repair Shops*

This Code of Practice is not a regulatory document. Methods, products and processes mentioned in this document are included as **examples** of pollution prevention techniques common to the automotive repair industry. Important appendices have also been included in this booklets.

❒ *The Need for the Code of Practice*

The City of Albuquerque's **Publicly Owned Treatment Works (POTW),** the **Southside Water Reclamation Plant**, has a **National Pollutant Discharge Elimination Systems (NPDES) Permit**. Wastes discharged to surface waters are regulated under the Clean Water Act through an **NPDES** permit which sets standards for pollutants in wastewater the plant discharges into the Rio Grande. Many residents and businesses may think, **"how can the small amount of paint, pesticide, or motor oil that I pour into the drain possibly cause any harm?" COLLECTIVELY,** every businesses's contribution to the sanitary sewer system counts!. The Southside Water Reclamation plant is designed primarily for domestic sewage. Solvents, oil and grease, as well as heavy metals threaten the treatment plant, and ultimately the Rio Grande. The Southside Water Reclamation Plant needs your help in order to remain in compliance with the National Pollutant Discharge elimination systems permit, and to protect the Rio Grande.

Remember, businesses who adhere to the criteria in this Code can be certified and given annual recognition certificates for their efforts. Participation is voluntary, but the **alternative is to face potentially more direct regulation through permitting, discharge reporting, etc.**

Pollution Prevention Principles

Section 1

Automotive Repair shops generate a variety of byproducts and recoverable materials in their operations. Common types include:

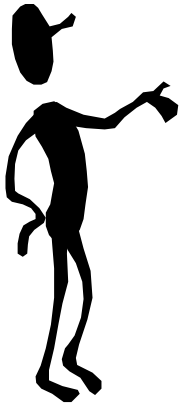
- Spent Solvent
- Acid and Alkaline Cleaning Solutions
- Recoverable Heavy Metal Solid Wastes
- Liquids Containing Recoverable Heavy Metals
- Baths and Concentrated Rinse waters
- Chlorinated solvents
- Chloroflurocarbons (CFCs)
- Spills and Leaks

Introduction to Pollution Prevention

Although it has become a catch phrase, pollution prevention has become part of many automotive shops day to day business. Many auto repair shops have been practicing pollution prevention for years. Good housekeeping and inventory management, production optimization, recycling, recovery and reuse are all methods of pollution prevention. What pollution prevention does is take these ideas and place them under a single heading.

Pollution prevention involves questioning and reviewing all facility processes, the chemicals and the associated procedures. The ultimate questions that should be asked are:

Am I doing this process this way simply because I've always done it this way?



Is there a better, less polluting and potentially less expensive, way of doing this procedure?
The answers will often be Yes!

Pollution prevention consists of waste management that reduces the amount of waste materials generated or requiring disposal. Pollution prevention can reduce the amount of hazardous and non-hazardous waste generated in your shop. This benefits businesses by minimizing:

- ♦ Disposal Costs
- ♦ Cost of Future Liabilities
- ♦ Transportation Costs
- ♦ Off-Site Treatment Costs
- ♦ Worker Safety Costs
- ♦ Fees and Taxes
- ♦ Insurance Costs
- ♦ Current Operating Costs
- ♦ Regulatory Compliance Costs

Pollution Prevention can increase productivity and employee safety, improve environment protection and enhance community relations. These benefits may be realized by a business by implementing the following pollution prevention methods.

Source Reduction

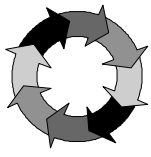
- Prevents or reduces the generation of waste materials that may otherwise be released to air, land or water.

Examples include:

- substituting input material (A good example is substituting a non-chlorinated solvent for a chlorinated solvent).
- changing production processes to reduce the amount of waste generated.

Recycling

- Recycling is the use, reuse or reclamation of materials. This can be done by employing on-site or off-site techniques to remove contaminants from a waste stream so the regenerated material can be reused.



Examples include:

- Recycling antifreeze on site with a coolant recycling unit

- using an recycling company to pick up waste oil and used oil filters.

To be successful, **a pollution prevention program must be organized**. It' s not hard to organize a pollution prevention program, but you will need to spend some time to get started. While conducting your self assessment keep in mind the following principles:

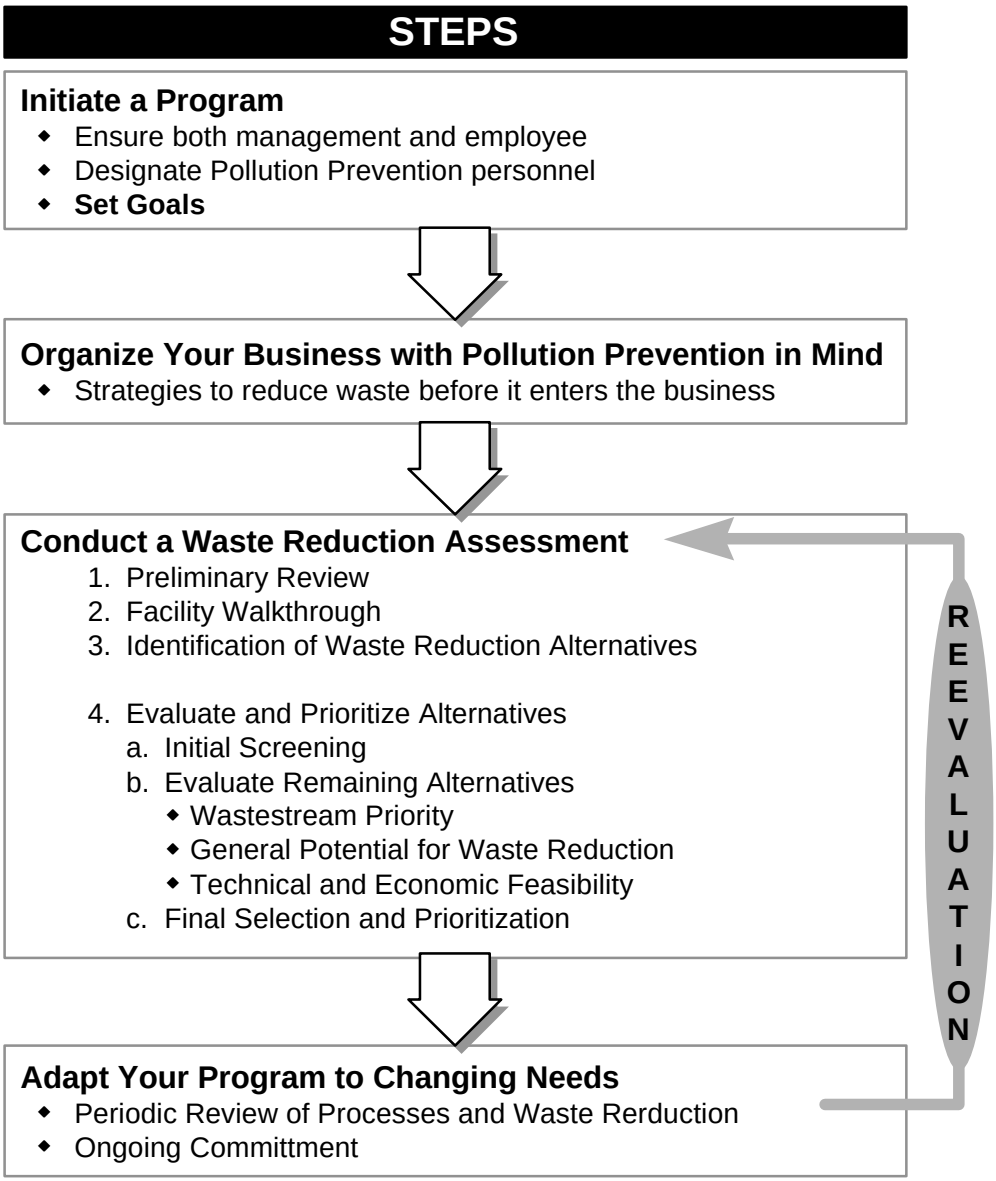
Principles of Pollution Prevention

1. Facility owners/managers must be committed to pollution prevention for it to work.
2. A pollution prevention program should include specific written goals and objectives.
3. Identify your wastes. Are they hazardous or non-hazardous?
4. You should know how your materials and wastes are managed and the associated costs.
5. Train all employees in waste handling and pollution prevention methods.
6. Be aware of the waste regulations that apply to your business.
7. Make pollution prevention an integral part of all facility processes, not just a folder on a desk.

AVOIDING THE REGULATORY INTEREST

ALTERNATIVE IS IN EVERYONE'S

Let the **p2** Program
help your business!



This chart shows the basic steps you can use in implementing pollution prevention practices:

FIGURE 1 POLLUTION PREVENTION PROGRAM STEPS

Liability

Pollution prevention can be conducted in several areas of business. These areas pose different levels of liability. It can be said that the more a business does to reduce the amount of waste generated, the less liability for the business. Conversely, the more wastes a business sends to disposal, the more likely the business's liability increases.

Below are some examples of some of the different areas waste minimization, or source control practices can be implemented:

I. Inventory Management - Buy only what you need to reduce out-dated stock chemicals. Rotate stock to use chemicals in date sequence. Check delivered stock for damage to reduce spills and to return damaged stock.

II. Production-Process Modification - Modify the manufacturing process to reduce waste. Simple quality and process checks can reduce the amount of wastes generated.

III. In-process Recovery and Reuse - Increase the amount of materials recovered and reused with the facility process.

IV. On-Site Recovery and Reuse - Increase the amount of materials recovered and reused within the facility.

V. Interindustry Exchange - Waste materials can be exchanged between businesses. One businesses' waste may be another's raw material.

VI. Off-Site Recovery - Sending materials for off site recovery or recycling

VII. Disposal - Sending materials off site for disposal as hazardous waste. Due to strict regulations, hazardous waste disposal carries the greatest level of liability. Disposal is not considered a waste reduction method, but can be an associated process when materials are disposed of properly after waste reduction or

recovery techniques have been used.

This chart shows differing levels of liability by pollution prevention procedure.

Pollution Prevention Category

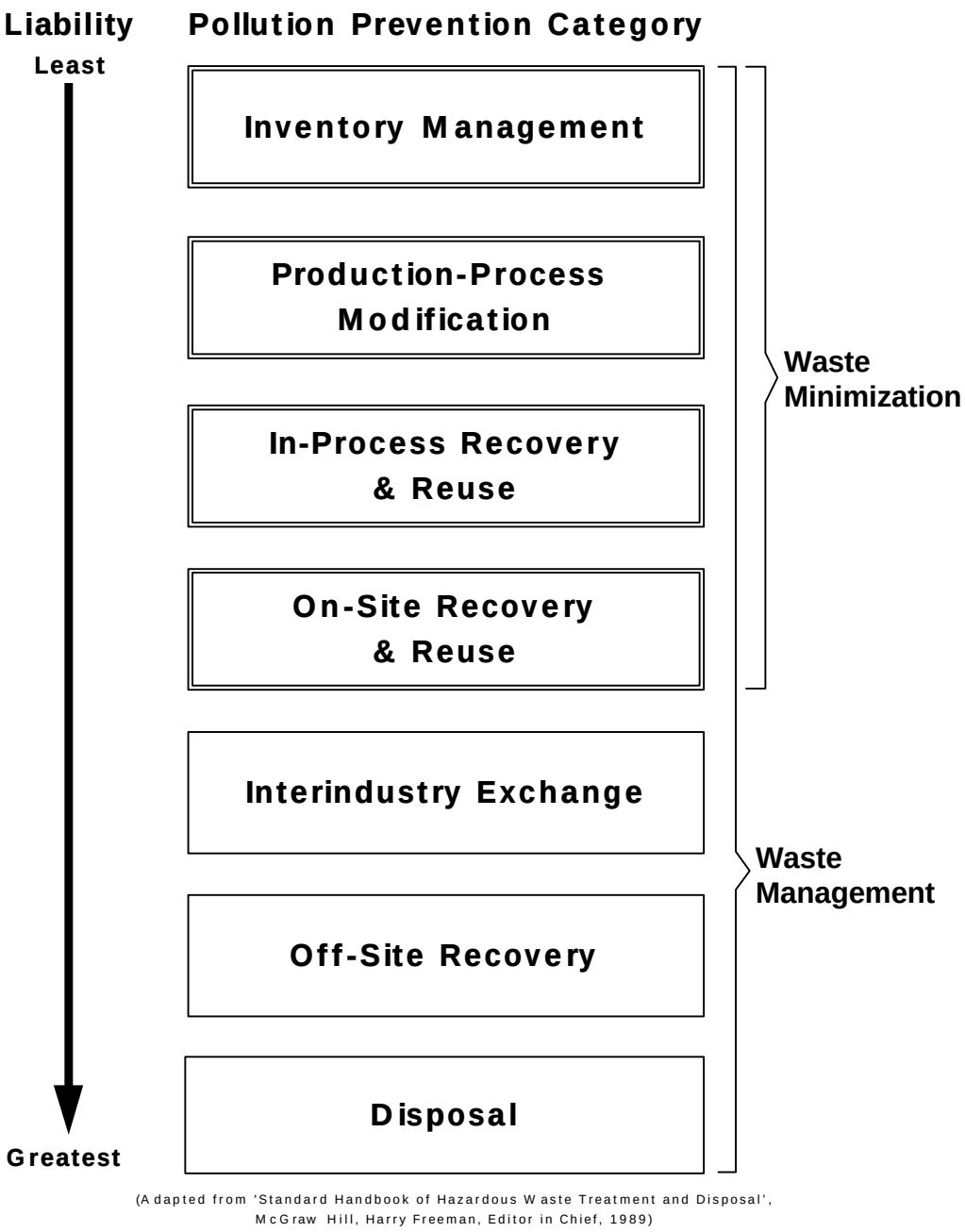


Figure 2. Levels of Liability

DISPOSAL GENERALLY CARRIES THE GREATEST AMOUNT OF LIABILITY

Assessing Your Pollution Prevention Opportunities

These checklists will help you perform a pollution prevention assessment. The objective of the assessment is to identify ways to reduce or eliminate waste, or recover materials through careful review of your facility operations and waste streams. After selecting a special area or areas to focus on in your pollution prevention efforts, a number of options should be developed and evaluated. Next, evaluate the technical and economic feasibility of the selected option. Finally, select the most promising pollution prevention options for implementation.

Useful Questions:

1. What are the recoverable materials and/or hazardous and non-hazardous wastes, and from what processes are the materials/wastes, generated? What are the volumes generated?

2. Which wastes are hazardous and which are not? What makes waste(s) hazardous?

3. Are unnecessary wastes generated by **mixing recyclable wastes** with other process wastes, especially with **hazardous wastes**?

4. What housekeeping practices are used to reduce the amount of waste generated?

5. What process controls are used to improve manufacturing process efficiency?

6. What are the facility's current hazardous and non-hazardous waste disposal costs?

LOOK FOR CLUES TO REDUCING WASTE!

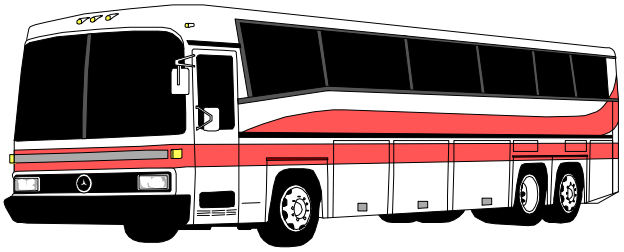
Checklists

Complete the following pollution prevention checklists and find out if your business is maximizing pollution prevention techniques. The checklists are accompanied by a short description as well as space for your own personal notes.

The following checklists and reference information can be used to identify, review, and determine appropriate pollution prevention options. Each question is accompanied by a short description and is then referenced to the Code's Reference Manual where applicable.

It is recommended that, if you do specific auto repairs:

1. **Begin by completing the checklist for that repair first.**
2. **From the checklist you will begin to see the options, and the concerns that exist about each type of auto repair.**
3. **After completing the checklist you can then request Reference Manual material for more detailed direction.**

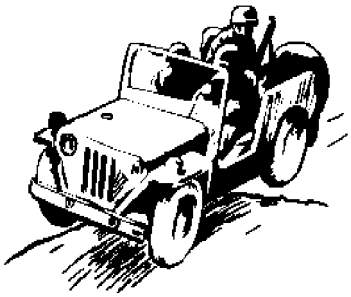


Jump on board for Pollution Prevention Opportunities!

POLLUTION PREVENTION PLANNING			
1.	Do you have an established Pollution Prevention Program? Yes No	The **goal** of pollution prevention is to reduce or eliminate the generation of pollutants before they enter the waste stream.	The **result** of pollution prevention is a reduction in volume of waste(s) that require disposal. See Chapter 2 of Reference Manual for more about **Source Control.**
2.	Do you control the volume of wastewater you generate? Yes No	● Large water use, means increased $ ● If you use lots of water you could be classified as a **Significant Industrial User & require a wastewater discharge permit.**	See Chapter 2, of Reference Manual, page 4 for information about reducing water use.
3.	Are there employee education programs on reducing waste? Yes No	You can reduce waste, if you train employees to properly handle hazardous wastes. Some trade associations, local environmental health agencies, & consulting firms sponsor employee training seminars.	See Chapter 13 of the Reference Manual, it contains general guidelines concerning spill control.
4.	Do you know current local, state & federal regulations? Yes		See Chapter 13 in the Reference Manual**,** it has information about hazardous waste regulations.

PRODUCTION MANAGEMENT			
5.	Are different repairs sequentially located? Yes No	Each different type of repair should be adjacent to each other, to avoid excess material handling. This reduces the potential for accidental spills.	Chapter 2, pg 4 of Reference Manual
6.	Are solvent baths prepared by trained personnel? Yes No	You can often minimize waste and improve the consistency of solvent baths by assigning one or more properly trained person(s) to mix chemicals.	Chapter 4, page pg 22 of Reference Manual
7.	Has your facility conducted an environmental assessment to determine regulatory compliance? Yes No	Free, technical, non-regulatory assistance is available for any concern.	See City & State references listed at the back of this Checklist or call the (p2) Program at 873-7004.
8.	Does your facility have a formal facility inspection plan? Yes No	Regular inspections of your facility's storage, waste treatment, & vehicle repair areas will help maintain optimal production	

PRODUCTION MANAGEMENT			
1.	Do you buy large containers of chemicals? Yes No	Smaller containers are emptied faster and there is less chance of chemical decomposition when using smaller containers.	Chapter 2, pg 12 of Reference Manual
2.	Do you keep records of the materials you use? Yes No	You can minimize waste and fulfill RCRA requirements by documenting wastes.	Chapter 13, page, 109.
3.	Do you practice “Good Housekeeping”? Yes No	Use drip trays under leaking parts to allow more drainage time.	Chapter 2, page 4.
4.	Are you up-to date on new technology? Yes No	New products that **reduce** wastes, costs, and improve employee safety are being developed all the time.	The p2 staff researches new technology all the time. Call the p2 staff or your supplier for information about product substitutions.



Attack wastes, and reduce costs.